Counting griz: DNA study says just 765 grizzlies roam 7.8 million acres

The long awaited number is in: 765. That's the population estimate of grizzly bears in the Northern Continental Divide Ecosystem. The NCDE is a swath of land from Canada along the Continental Divide south to roughly Ovando.

It covers all of Glacier National Park and the entire Bob Marshall Wilderness complex.

The grizzly number was released in mid-September after years of analysis. The principal author was U.S. Geological Survey Scientist Kate Kendall, headquartered in Glacier National Park.

The Associated Press story that came out the day after Kendall's Sept. 16 announcement claimed bears were "thriving" — even though a simple look at the math would place a single grizzly on about every 10,000 acres of land, or 15 square miles.

Of course, bears don't spread out like that — their concentrations are based on habitat and many other factors, but the point is simple — the landscape isn't exactly crawling with bears.

Still, the estimate is 2.5 times the number of bears previously thought to live in the area, Kendall noted.

The study doesn't give a population estimate of the number of grizzlies in Glacier National Park. That number still has to be calculated, because bears move in and out of the Park, creating a mathematical variable.

It is the largest non-invasive study of bears to date and is the first ever ecosystem–wide scientific assessment of grizzlies in the 12,187-square-mile Northern Continental Divide area.

The grizzly bear population in northwest Montana, thought to be one of the last strongholds of the grizzly in the lower 48 states, has been listed as threatened under the Endangered Species Act since 1975.

A team of more than 200 researchers and crew members worked on the Northern Divide Grizzly Bear Project which was led by the USGS in cooperation with 12 federal, state, and tribal agencies, landowners, universities, and other entities.

Scientists designed a comprehensive study plan that involved non-invasive methods of collecting hair from bear rubs (bears naturally rub against trees and posts) and systematically positioned hair traps that made use of scent lure to attract bears.

The traps were simple: They were fences of barbed wire strung usually between trees. In the center of the "trap" was a scent station — a mix of rotten cow's blood and fish juice. Bears love to smell rotten stuff and when they went to the scent, they'd leave hair behind on the barbed wire.

During the 2004 summer field season, 4,795 bear rubs and 2,558 hair traps were used to collect hair. Approximately 13,000 samples were collected from bear rubs and 21,000 were collected from hair traps, providing researchers with a total of 34,000 bear hair samples.

Through the use of genetic analysis, including DNA fingerprinting, researchers were able to determine the total number of bears sampled and track the detections in time and space. Genetic analysis of the 4,000 hair samples resulted in the identification of 563 individual grizzly bears.

USGS scientists then used statistical models to calculate the number of bears not sampled and incorporate them into an estimate of the total population size, leading to a complete

A griz peers through the trees in Glacier National Park in 2004.

population estimate of 765.

The estimate doesn't mean bears will be de-listed from the ESA soon.

Population trend studies are still underway to determine if grizzly bear populations are increasing and the impact of human-caused mortalities.

Bears are expanding their range, however.

The study found that the occupied range of the grizzly bears now extends 2.6 million acres beyond the 1993 recovery zone boundary set by the U.S. Fish and Wildlife Service in its Grizzly Bear Recovery Plan.

"Overall, the genetic health of the population is good," said Kendall. "With diversity in the population approaching levels seen in undisturbed populations in Canada and Alaska, there is no evidence that population size was ever severely reduced or that its connection to Canadian populations was broken. The genetic structure suggests that there has been population growth between 1976 and 2007."

Researchers did detect, however, early signs that human development has begun to inhibit interbreeding between bears in one part of the ecosystem, particularly as traffic and human growth increases along U.S. Highway 2 south of Glacier.

Kendall told a crowd during a press conference that more bear habitat needs to be protected.

She suggested conservation easements on private land and other strategies to limit growth in bear habitat.

She said the biggest threat to populations are "continued human development that fractures the populations and provides lethal attractants."

Lethal attractants range from garbage to dog food.

Once grizzlies get into human foods they usually come back to the source, end up in trouble, and eventually, dead.